

**THE IMPLEMENTATION OF KNOWLEDGE
STRATEGIES FOR COMPETITIVE ADVANTAGE
IN SELECTED MALAYSIAN GOVERNMENT-
LINKED COMPANIES**

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LIST OF ABBREVIATIONS

CI	A strategic process that begins with determining the customer's needs, recognition of competitors strengths and weaknesses, assessment of likely activity and end with the identification of the company's own strength and weaknesses.
DC	The ability of organizations to integrate, build and reconfigure internal and external competencies to address rapidly changing environments.
GLC	Government-linked companies: Companies that have a primary objective and in which the Malaysian Government has a direct controlling stake.
GLCT	Government-linked companies transformation programme: A transformation manual documenting a set of Policy Thrusts, guidelines and 10 initiatives to enhance the government-linked investment company monitoring and management function (M &M).
GLIC	The Malaysian Federal government-linked investment companies that allocate some or all of their funds to GLC investments.
IOR	The degree of commitment that supports an exchange relationship for the transfer of goods, services, or information
KVA	Knowledge value added-The KVA analysis produces a return-on-knowledge (ROK) ration to estimate the value added by given knowledge assets regardless of where they are located.

KPI	Key performance indicators: The most important performance indicators required to manage the business, serving as the link between performance and rewards and consequences.
PCG	Putrajaya High Commission on GLC- A governmental initiated agency to govern and oversee the implementation of the GLCT programme.
VCP	The Value Creation Plan (VCP) are targets and objectives in ensuring that GLC performance improves which contributes to the nation's development and create value for other key stakeholders.
Value Network	The continuous cycle and the transformation of learning into knowledge as a core activity results in value embedded in processes that produce saleable products and demonstrates a fundamental connection between learning, knowledge and value.

**PELAKSANAAN STRATEGI PENGETAHUAN UNTUK KELEBIHAN DAYA
SAING DI ANTARA SYARIKAT MILIK KERAJAAN MALAYSIA YANG
TERPILIH**

ABSTRAK

Suatu pendekatan pasca-positivis telah diguna pakai dalam kajian kes ini dengan pandangan yang objektif untuk mengkaji fenomena dan menjelaskan proses yang berlaku dalam konteks tempatan. Keseluruhan kajian kes termasuk tiga puluh tiga temu bual dalam kalangan empat GLC dan triangulasi sumber berganda contohnya dokumen dan kajian literasi. Siasatan permasalahan kajian ini adalah- mengapa strategi pengetahuan (KS) penting kepada syarikat GLC di Malaysia. Saranan salah satu kajian menyatakan bahawa pelaksanaan KS adalah penting kepada GLC dalam usaha untuk mencapai kelebihan daya saing. Dalam konteks ini, antara faktor yang menyumbang kepada kejayaan pelaksanaan KS yang telah disiasat dalam kajian ini ialah tahap keupayaan dinamik (DC); hubungan interorganisasi (IOR) dan cadangan nilai iaitu pendekatan 'pengetahuan nilai tambah' (KVA). Dengan cadangan ketiga – analisa perbezaan yang mungkin wujud dalam kalangan GLC menampilkan pendekatan nilai pengetahuan nilai tambah (KVA) dan nisbah pengetahuan (ROK) di kalangan empat GLC berbeza berdasarkan tahap indeks prestasi utama yang berbeza. Dua syarikat menunjukkan perbandingan nisbah yang lebih tinggi dalam penggunaan bilangan KPI bukan kewangan. Penemuan akhir kajian, juga telah mendapati menerusi model kematangan KPMG (1999), bahawa syarikat GLC telah mencapai tahap pra-inovatif dan termaju sebagai mengenal pasti tahap prestasi dalam perjalanan KM mereka dan mempertimbangkan inisiatif atau langkah seterusnya demi peningkatan syarikat. Dapatan dari kajian kes ini dapat menyokong usulan ketiga-tiga cadangan.

**THE IMPLEMENTATION OF KNOWLEDGE STRATEGIES FOR
COMPETITIVE ADVANTAGE IN SELECTED MALAYSIAN GOVERNMENT-
LINKED COMPANIES**

ABSTRACT

The case study had included thirty-three interviews among the four GLCs and adopted a post-positivist approach via the triangulation of multiple resources namely interview findings, document and literature review. The problem being investigated was on why knowledge strategy (KS) was significant to the government-linked companies (GLCs) in Malaysia. Proposition one of the study stated that the implementation of KS was significant to the GLCs in order to achieve competitive advantage. The main factors which contributed to the successful implementation of KS that were investigated in this study were the levels of dynamic capability (DC); interorganizational relations (IOR) and value propositions namely the ‘knowledge value added’ (KVA) approach. The third proposition focused on analyzing any inherent KS differences being implemented by the GLCs; the application of the KVA approach indicated that the ratio of knowledge (ROK) among the four GLCs differed based on different levels of key performance indexes. The cases were found to have differed in the levels of KS maturity which illustrated the inherent differences in the KS being implemented by the GLCs. Based on the KPMG maturity model (1999), that the GLCs had achieved either pre-innovative or advanced stages allowing companies to identify where they stand in their KM journey and what initiatives or further steps of improvement the company to be considered. The findings from the case study were able to support the culmination of these three propositions.

CHAPTER 1

INTRODUCTION

“A corporation is like a tree. There is the part that is visible-the fruit- and the part that is hidden- the roots. If you concentrate only on the fruit and ignore the roots, the tree will eventually die. For a tree to continue to grow and produce you must make sure that the roots are nourished. The same is true for a company. If you concentrate only on the fruit-the financial performance -and ignore the hidden value, the company will not endure over the long-term”

Leif Edvinson (1998)

1.0 Introduction

Knowledge management (KM) received growing interest by business practitioners and researchers within the developing economic countries since the beginning of 1990's. Perhaps one of the earlier landmarks of KM began with at a conference held in Boston in 1993 (Prusak, 2001). The conference brought about various understanding of the subject matter which led to several conceptualization of KM. The response and feedback from the conference attendees was encouraging. From the conference, Prusak (2001) noted that it was a good indication that the business communities were intrigued and would want to learn and explore further on KM. Similarly corporate consultancies such as Ernst and Young (1997) and across different industries such as BP Amoco and IBM have explored the notions of KM and viewed organizational knowledge as a source of competitive advantage (Ruggles, 1998). In a broader context, new economic variables such as globalization and the advent of the Internet has increased the pressure for companies to conduct reality checks of doing business in order to compete and sustained the competitive advantage. Peter Drucker (1998) argued that knowledge

has become the key economic resource and the only source of competitive advantage. Drucker (1998) lamented that most assets are subject to diminishing returns except for knowledge. In contrast, knowledge thrives on the concept of increasing returns on the resources deployed, since “knowledge shared is knowledge multiplied.” However today since its earlier inception to the business community in the 1990s, KM has been proven to be beyond a mere “buzzword” as it has been widely practiced in many large organizations and across nations such as Europe, Japan and North America (Wiig, 1999). Wiig (1997) proposed that KM is the systematic and explicit management of knowledge-related activities, practices, programs and policies within the enterprise. Another definition by Sveiby (1997) posited that KM is the art of creating value to organizations by leveraging intangible assets. Malhotra (1998, p.58) defined KM as -

“Critical issues of organizational adaptation, survival and competence in face of increasingly discontinuous environmental change... Essentially, it embodies organizational processes that seek synergistic combination of data and information processing capacity of information technologies and the innovative capacity of human beings”

A widely-accepted view on KM is by Davenport and Prusak (2000) who proposed that KM is largely concerned with the exploitation and development of the knowledge assets of an organization with the view of furthering the organization’s objectives. It is also explained that the knowledge assets mentioned in their definition include both explicit, documented knowledge and tacit, subjective knowledge of the organization (Davenport & Prusak, 2000). Therefore KM helps an organization gain insights and further understanding from its own experience (Davenport & Prusak, 2000; Gan, Ryan & Gururajan, 2006). Paramount to the development of knowledge

principal is the growing consensus among nations that is emerging around some key themes. Malhotra (2003) argued that KM is not the same as information communication technology or e-business. Firstly KM is not technology per se. Secondly, people and processes are critical to KM. Finally, KM is essential for survival and performance in the emerging global economy. From this context, KM can be defined as the identification, optimization and active management of intellectual assets either in the form of explicit knowledge held in artifacts or tacit knowledge possessed by individuals and communities (Snowden, 1999).

The underlying notion of the statement above relates to the necessity for corporations to develop knowledge strategies to sustain competitive advantage. Skyrme (1998), Zack (1999), Murray (2000), Teece (2000) and Tiwana (2000) stated that knowledge is the only source for innovation and sustainable competitive advantage. Skyrme (1998) refers to knowledge and other forms of “intellectual capital” as the “hidden assets” in a company. Whilst Zack (1999) maintained that a knowledge-based competitive advantage is sustainable because the more a firm already knows, the more it can learn. Thus the consistent theme in all espoused definitions of KM is that it provides a framework that effectively builds on past experiences of the organization and provides an avenue for new mechanisms for knowledge transfer and creation to emerge (Takeuchi & Nonaka, 2004). In summary the researchers and practitioners alike agree that KM effectively creates, captures, shares and uses organization-wide knowledge to improve the organization’s performance and to gain competitive advantage (Barquin, 2001; Davenport & Prusak, 2000; Malhotra, 1998; Sveiby, 1997; Tiwana, 2000; Skyrme, 1998; Wiig, 1997; Zack, 1999). The following

paragraphs are further explanation about the GLCs and its participation in the Transformation Program.

1.1 Government-Linked Companies (GLCs) Defining the Malaysian Scenario

The Government-Linked Companies (GLCs) is defined as companies that have a primary commercial objective and in which the Malaysian Government has a direct controlling stake (Putrajaya Committee, 2005). In Malaysia, the champions of KM have been local institutions among the GLCs include the Multimedia Development Corporation (MDeC), Institut Tadbiran Awam Negara (INTAN), Malaysian Administrative Modernization & Management Planning (MAMPU), Malaysian Institute of Nuclear Technology Research (MINT), Standards and Industrial Research Institute of Malaysia (SIRIM), Telekom Malaysia, Tenaga Nasional Bhd and Petronas (Chowdhury, 2006). In the present study, the GLCs were chosen on the basis that they served as major stakeholders of public sector investments in terms of high market value worth in the region of billions of ringgit (RM). The raising prominence in the roles of the GLC are mainly due to the fact that the GLCs remains the main service providers to the nation in key strategic utilities and services including electricity, telecommunications, postal services, airlines, airports, public transport, water and sewerage, banking and financial services (Putrajaya Committee, 2005). As such, the GLCs play an important role both in executing government policies and initiatives and in building capabilities and knowledge in key sectors. Thus, the GLCs are expected to be more competitive in their respective industries and spearhead growth in the corporate sector, but also performing on par with global competitors. The GLCs are operating in key industries which each of the firm having

long-standing relations with the government and been in operation for more than ten years in their respective industries such as plantations, property, construction and investment. Although the GLCs are encouraged to emulate the success of KM initiatives and best practices of the private sectors, the GLCs like all organizations need to develop „context“ by not simply adhering to standard industry best practices but rather develop their own practices incorporating organizational knowledge and work values (Snowden, 2007).

According to the former Prime Minister of Malaysia (2005), Dato“ Seri Abdullah Haji Ahmad Badawi, the GLCs needs to review their role as strategic developers in many of the new growth areas. More importantly, the GLCs make up about 49 percent of the market capitalization of the Bursa Malaysia which accounts for around 5 percent of the country’s national output and employ some 400,000 people (PCG, 2005). Thus the overall boost in the performance of the GLCs would produce a powerful demonstration effect for the country’s larger private sector, and develop new growth prospects in the country. The Malaysian government has placed increasing efforts in transforming the GLCs to be more competitive via incorporating key performance indicators (KPIs) and adopting best practices. The GLC Transformation Program was developed in 2005 as a testament to the Malaysian government’s commitment to cultivate KM initiatives amongst GLCs. In tandem with the transformation program, the Putrajaya Commission on GLC High Performance (PCG) was appointed to ensure the smooth implementation of the program. The transformation program has two core elements: value creation plan and ten initiatives of the GLCs. the GLCs need to develop their own value creation plan based upon their own capabilities (GLCs Transformation Program, 2005). The

transformation program has a target of ten years (2005 to 2015) for the nation to reap the full benefit with intermediate phases of the ten initiatives. A glance of the ten initiatives shown in Table 1.1 below illustrates that each initiative has its specific purpose, guidelines and timelines. The government has identified the targeted outcomes for the GLCs between the years of 2007 to 2010 were (i) tangible and sustained benefits across all GLCs; (ii) visible benefits to all stakeholders (e.g., customers, vendors and employees); (iii) large scale strategic and financial changes made; and (iv) material changes to Boards. In view of the value plan and the ten initiatives, it can be said that the transformation program served as a KM blueprint for the GLCs.

In the present study, a case study approach was employed due to its ability to consider a single or complex research question within an environment rich with contextual variables and when the investigator has little control over events (Yin, 1984). According to Yin (1994), one should deliberately decide what to study to allow for detailed examination of an event or contextual condition. Based on the descriptions of the Transformation Program, Initiatives 1, 2, 4, 5, 6, 7, 8 and 10 (see Table 1.1) focused on improving the specific level of guidelines and regulatory of the KM initiatives throughout the core activities of the companies namely in terms of board governance; procurement; leadership advancement and social responsibilities. In the Transformation Program, Initiative 3 focused more on identifying value propositions for a more productive and efficient GLCs while Initiative 9 focused on improving internal capabilities via implementing practices which were relevant to the GLCs (PCG, 2006).

Table 1.1: The Ten Initiatives of the GLC Transformation Program in Malaysia (2005)

Initiatives	Descriptions
1. Enhance board effectiveness	„Green Book“ on enhancing Board effectiveness through revamping Board practices and processes (based on pilot)
2. Strengthen Director Capabilities	For strategies to source effective Directors developed with pilot.
3. Enhance monitoring and management functions	To enhance the processes and capabilities of its monitoring and management function and establish „nominee director term sheets“
4. Improve regulatory improvements	Guidelines to assist GLCs in building regulatory capabilities based on pilots and the development of a Regulatory Knowledge Network.
5. Clarify social obligations	„Silver Book“ with Guidelines to assist GLCs in clarifying and quantifying their social obligations based on 2 pilots.
6. Revamp and review procurement	„Red Book“ to provide best practices, clarification on government policies and the role of GLCs in developing local suppliers, based on pilots to be distributed by Q4 2005.
7. Optimize capital management practices	„Purple Book“ to optimize GLC capital management.
8. Manage and develop leaders and other human capital	„Orange Book“ to provide guidance for GLCs to develop programs to identify, cultivate and develop leaders and other human capital.
9. Intensify performance management practices	Establish „Blue Book“ and other initiatives to drive performance, such as Headline KPIs and implementation of EVA/VBM.
10. Enhance operational improvement	„Yellow Book“ to manage non-core assets, and „Brown Book“ on customer charters.

As such, both Initiatives 3 and 9 were chosen based on the rationale that initiative 3 emphasizes the decision-making aspects of the GLCs in the formulation of knowledge strategy to be competitive. Initiative 9 examines closely at understanding the GLCs performance capabilities such as the incorporation of driver performance which are value-based (such as KPIs). Thus feedback on the types of KPIs being used by the GLCs would be useful in identifying its knowledge strategy level. In this context, Zack (1999) defined knowledge strategy (KS) as an overall approach that an

organization intends to take to align its knowledge resources and capabilities to the intellectual requirements of its strategy, thus reducing the knowledge gap existing between what a company must know to perform its strategy and what it does know. Hence the scope of the present study encompasses analyzing the GLCs implementation of KS from both the managerial and evaluation perspectives.

According to Ikujiro Nonaka's (1994) theory of organizational knowledge creation, the SECI's model (socialization, externalization, combination and internalization) espoused that knowledge can be generally categorized into two forms: tacit knowledge (for example: internalized ideas and experience) and explicit knowledge (for example: codified text, maps and manuals). Nonaka (1994) proposed that the continuous dynamic interaction between explicit and tacit knowledge eventually leads to creation of knowledge. He explained that internalization or understanding of explicit knowledge happens when explicit converts to tacit knowledge and becomes a part of one's basic information. Within the context of this study, Initiative 3 denotes the SECI's socialization and combination cycles. The socialization stage focused on tacit to tacit knowledge linking via the processes of interactions, discussions and analyzing through shared experiences. This tacit knowledge enhances the decision-making aspects in Initiative 3 (i.e. decision-making processes) whereby organizations gain new knowledge from interactions and feedback with various stakeholders-such as customers and suppliers. With the combination stage, knowledge transforms from explicit to explicit knowledge. For example, the finance department collects reports from various departments and consolidates into an annual performance report. These reports then serve as creative database in business reports for decision-making purpose as stipulated in Initiative 3. The sharing of knowledge begins with

individuals and moves up through organizational level in which eventually leading to new spirals of knowledge creation. As such it can be argued that the SECI's stages of externalization and internalization are linked to Initiative 9 (i.e. implementation of the performance management practices) of the Transformation program. The externalization rationale is pertinent to Initiative 9 as the process focused on tacit to explicit knowledge linking-thereby allowing thought processes such as Total Quality models to be implemented at the workplace which helps improve performance or provide problem solving solutions. As for internalization, knowledge involves the implementation of explicit knowledge via the sharing of tacit knowledge throughout the organization. For example, by reading manuals and documents employees could implement and create new knowledge, thus enhancing the levels of innovation and value creation for the company. The GLCs develop knowledge creating processes and strategies by the „implementation“ of explicit knowledge (e.g. training manuals) which is then shared through tacit knowledge in training programs and practices by its employees at different stages of their working within the company. In reviewing the study, as per Nonaka's SECI (1994) model, the GLC's developed knowledge creating processes and strategies by the „internalization“ of explicit knowledge (e.g. training manuals) which is then shared through tacit knowledge in developmental programs and practices by its employees at different stages of their work within the company. Hence the rationale for including the „implementation“ aspect into the study title which encompassed the scope of analyzing the GLCs internalization of KS from both the managerial and evaluation perspectives.

1.2 Problem Statement

The problem being investigated in the present study is that despite over a decade the GLCs have yet to achieve the same level of competitive advantage as compared to other the private industry players in Malaysia (PCG, 2005). CIMB bank in “GLCs Issues and Prospectus” (2004) highlighted that many of the GLCs despite showing value domestically may be lagging in certain areas from a regional and global benchmarking standpoint. In terms of the total return to shareholders of public listed, the GLCs are behind overall market performance by 21 percent over the past five years (GLCT, 2005). Furthermore, the challenges of pushing the GLCs to be more competitive in terms of their performance are getting tougher due to the pressing phenomenon of the public perception that GLCs underperformed its peers. The transformation of the GLCs to a higher level of global performance is therefore needed as they account for high public investments and resources in Malaysia. Figure 1 below indicated that the GLCs underperformed the broader Malaysian market on all key financial indicators except for size and of the selected 15 GLCs (which represent approximately 65% of the market capitalization of all listed GLCs). Only seven out of 15 GLCs created economic profit in financial year of 2004, in spite of of all 15 being profitable from an accounting standpoint (GLCT, 2005). Zack (2001) defined KS as competitive strategy built around a firm’s intellectual resources and capabilities. For example, the Sime Darby merger with Golden Hope and Guthrie Group would form the world’s largest listed palm oil company which would account to approximately six percent of global output (The Edge, 2008).

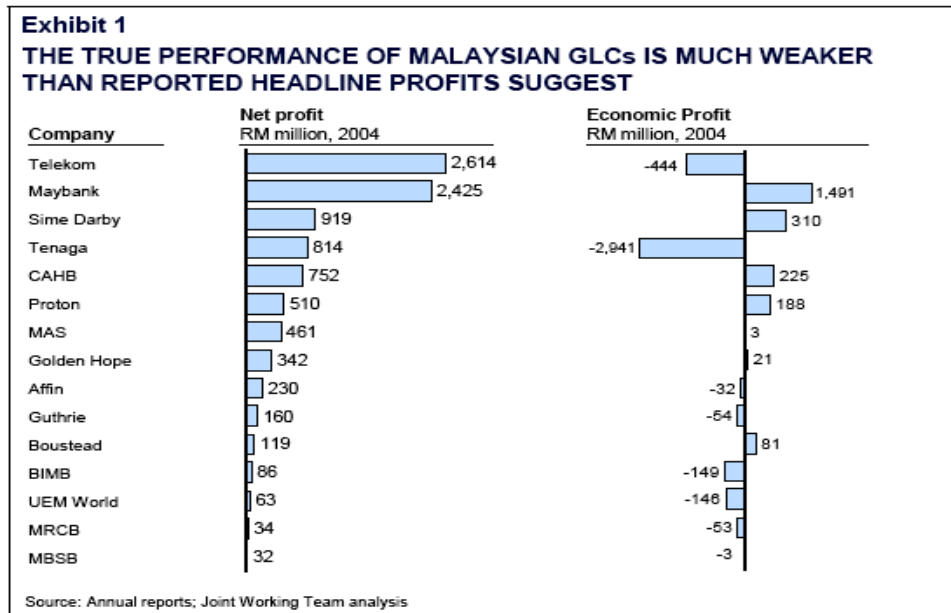


Figure 1.1 GLC Performance chart (Source: GLCT report, 2005)

According to Zack (1999), from the context of KS, many executives are struggling to articulate the relationship between their organization's intellectual resources and capabilities, and its competitive strategy because they do not have well-developed strategic models and are uncertain of how to translate the goal of making their organizations more intelligent into a strategic course of action. The basic problem confronting an organization is "to engage in sufficient exploitation to ensure its current viability and, at the same time, to devote enough energy to exploration to ensure its future viability" (Levinthal & March, 1993, p. 105). In other words, organizations need to develop KS by implementing KM initiatives which supports its purpose or mission, strengthen its competitive position, and create stakeholders value (Callahan, 2004). Some of the successful KM initiatives can be seen in Malaysian GLCs. For example, Telekom Malaysia formed a KM team to focus on information management or repository whereas PETRONAS developed content repository focused Intranet in mid-90s (Chowdhury, 2007).

From these GLCs success, it is apparent that these GLCs (for example, Telekom and PETRONAS) have devised action oriented KM initiatives beyond policies, developed interorganizational relations via a KM networks via the Intranet and adopting value propositions in creating knowledge sharing teams and culture. Furthermore, drawing upon the CIMB bank (2004) and PCG (2005) reports on the GLCs performance, GLCs examples of KM successes and arguments put forth on KS by Levinthal et al. (1993), Zack (1999) and Callahan (2004), it can be deduced that to enhance performance and achieve competitive advantage. In reviewing the literature review, the gaps highlighted by past case study KS can be deduced in the following three factors mainly (i) dynamic capabilities to support its KM initiatives, (ii) interorganizational relations to identify its internal strength and weaknesses and (iii) value propositions as to measure the contribution of knowledge.

The following section is further elaborations of the three key areas of KS:

i) Dynamic capabilities (DC)

In reference to the CIMB report (2004), it can be seen that there have been disparities in organizational performances among the GLCs. Hence in view of these disparities amongst the GLCs, there is a need to develop dynamic capabilities to be competitive, thereby enhancing organizational performance. Khanna, Gulati and Nohria (1998) argued that organizations form dynamic capabilities or networks to create competitive advantage (Shipilov, 2006). Dynamic capabilities are defined as the firm's ability to integrate, build, and reconfigure internal and external competences to address rapidly changing environments (Teece, Pisano & Shuen, 1997). Thus by having dynamic capabilities, the GLCs can leverage on KS which is consistent with

the conditions in the competitive global market and take advantage of existing or projected opportunities.

ii) Interorganizational relations (IOR)

Based upon the Global CEO study by IBM (2006), approximately sixty-five per cent of the 765 chief executives and leaders revealed that they are placing emphasis on business models innovation via external collaboration across their networks. The findings from the study also supported that collaborative network is a key agenda for companies with superior performance. According to Kuhlen (2003), networks need coordination and coordination is another word for management because knowledge production, enrichment, dissemination, and usage in the network need to be managed. As such to achieve competitive advantage, the GLCs need to incorporate value networks or forge interorganizational relations among its stakeholders to encourage the flow of knowledge assets and diffusion.

iii) Knowledge value added (KVA)

It was proposed from the joint collaboration research between Asia IT and Consultancy Program (EG2KM, 2007) that public sector organizations such as the GLCs can benchmark to adopt the best practices of the private companies that have successfully implemented the KM programs. Although the Asian conglomerates derive their resources from their scale, scope, wealth and long-standing relationships, this organizational model inhibits organizational performance because the portfolio approach to decision-making caused fewer enterprise performance measures and less opportunity to group collaboration such as leveraging core competencies across entities (Easton & Zhang, 2002). Currently, organizations in Malaysia utilize

parametric indicators via balance scorecard and relate to KPIs such as cost saving and customer feedback but difficulty lies in having to prove the validity of the link between the use of KM and the improvement in the selected indicators (EG2KM, 2007). Performance is therefore a key issue and performance measurement models provide a basis for developing a structured approach to KM relating to processes, people and product (Carrillo, Robinson, Anumba & Chassani, 2003).

As such it is among the contention of the present study to explore the Knowledge Value Added (KVA) performance measure proposed by Housel and Bell (2001). The KVA approach maintains that in principle, if we have not captured the knowledge required to make the changes necessary, we will not be able to produce the output as determined by the process. These tests are to determine if the amount of knowledge required to produce an output has been accurately estimated. When companies view themselves as a set of knowledge assets and outputs, they can identify and invest in the process, technologies and people that provide the greatest return (Choo & Bontis, 2002). As such the KPIs of the GLCs need to be linked with value propositions of various stakeholders such as better job prospects and human capital development. In short, the GLCs need to identify opportunities for greater value creation in both new and existing ongoing work of continuous operational improvements in order to achieve competitive advantage.

1.3 Research Questions

Drawing from the insights of the GLCs' current developments, the present study attempts to address the following issues:

1. Why is the implementation of knowledge strategy significant to the GLCs in Malaysia?
2. With reference to knowledge strategy, what factors affect GLCs' competitive advantage?
3. What are the knowledge strategies being implemented in the GLCs?

In today's environment of rapid change and technological discontinuity, even knowledge and expertise that can be shared is often quickly made obsolete. The real issue is *how* to explicate knowledge. As such, the GLCs need to have new perspectives and gain more insight in understanding and implementing KM initiatives. According to Malhotra (2003), there have been quite a bit of variance in adoption of KM strategy and its execution in Asian businesses such as Singapore and Malaysia, as well as India. Whilst Singapore had taken a primary focus on IT and e-business earlier, it has now emerged as a strong proponent of KM. In recent years, Malaysia has emerged as a strong proponent of KM at the various levels, while clearly realizing that it requires a much broader focus than IT. According to Szulanski (2008), the INSEAD Professor in Strategy, companies do not know why or what they do that really works and the realization comes when they try to transfer their practices. Based on this context, the present study examines why the GLCs need to develop a KS via the implementation of their KM initiatives. In his study on knowledge transfer, Szulanski (2008) further argued that the possible reason could be that there may be a certain amount of ambiguity about factors that are actually driving the success of a particular practice.

Therefore the following were the research objectives of the study:

i) to examine why the implementation of KS was significant to the selected GLCs. Drawing from Zack's (1999) theory on knowledge strategy, an organization's knowledge is derived from its strategy rather than vice versa. Hence it is posited in this study that each company was able to enhance its competitive advantage by aligning its KS and value propositions.

ii) to identify factors affect the successful implementation of KS. Drawing from Nonaka's (1999) study on KS, there are various factors which could significantly enhance the successful KS implementation albeit it internal or external to an organization.

iii) to explain any inherent differences in the KS being implemented by the GLCs. By adopting the KPMG (1999) maturity model, the levels of KS could be identified via the five stages namely knowledge chaotic; awareness; enabled; managed and centric. In the present study the researcher proposes levels of KM maturity may affect the implementation of KS typology.

1.4 Research Propositions

According to Yin (1994), a case study an empirical inquiry which includes several procedural characteristics in the situation such as many variables of interest; multiple sources of evidence; theoretical propositions to guide the collection and analysis of data. Yin (1994) also argued that the analysis of evidence is one the least developed and most difficult aspects of doing case studies and as such the proposition helps to focus attention on certain data and to ignore other data. Therefore the more a study

contains specific propositions, the more it will stay within feasible limits. Propositions may come from the literature, personal or professional experience, theories, or generalizations based on empirical data (Baxter & Jack, 2008). In this study, the three propositions below were derived from the readings of past KS and KM research of both local and international studies and also the data from the GLC transformation program. With reference to the research questions stated for the present study, the following research propositions are as follows:

Research Proposition 1: The implementation of knowledge strategy is significant to the GLCs in order to achieve competitive advantage.

Research Proposition 2: The GLCs knowledge strategy can be leveraged by several factors such as dynamic capabilities; interorganizational related and performance measured based on knowledge value propositions.

Research Proposition 3: There may be inherent differences in the knowledge strategies being implemented by the GLCs.

Based on the CIMB (2004) report, many of the GLCs were not performing in certain areas from a regional and global benchmarking standpoint. Among the areas cited was that the companies were not competitive and needs to be market driven (GLCT Report, 2005). Hence the Malaysian government developed the GLCs transformation program to serve as a catalyst for the companies to reach high global standards and strive towards becoming multinational corporations in the region. Drucker (1998) once said that knowledge was the most strategically significant resource of the firm which provides competitive advantage. As such this study is timely to address

Research Questions 1 (RQ1): why is the implementation of KS significant to the GLCs in Malaysia? In response, research proposition 1 formulates that the implementation of KS to the GLCs is significant in order to achieve competitive advantage. The second Research Question (RQ2) looks at identifying factors affects GLCs competitive advantage in the context of KS. In answering this question, research proposition 2 identified those factors as (i) dynamic capabilities; (ii) interorganizational related and (iii) performance measured based on knowledge value propositions. These three factors were derived based on past research and findings on various aspects in relation to KM. Moreover, organizations have come to identify KM initiatives from various organizational and functional factors as strategic facilitators of competitive advantages (Malhotra, 2000). As such evidence of these factors having a key role in the development of KS to enhance level of competitiveness among the four case studies would be significant in the study. According to Skyrme (1998), KS in general is focused on generating greater value through the knowledge in products, people and processes. In this context, the third research question (RQ3) examined what were the KS being implemented in the GLCs. Thus by examining the KS employed among the GLCs, the present study would be able to explain how the KS were implemented. As rightfully argued by Skyrme (1998), there are various ways that companies are creating strategic advantage through knowledge but the difficulty comes due to the complexity of knowledge not through handling 'explicit' knowledge, but 'tacit' knowledge which is harder to express and codify. Zack (1999) asserted that competing successfully on knowledge requires aligning strategy to what the organization knows.

Research Proposition 3: There may be inherent differences in the knowledge strategies being implemented by the GLCs.

1.5 Profile of KM Initiatives in GLCs

By and large the GLCs in Malaysia have initiated the following KM initiatives (Rosli, 2006):

- Implementation of KM initiatives which cuts across the organization
- Established culture of contributing to knowledge bank
- Established mechanism of award and recognition to contributors

To leverage successfully on knowledge bank for business gains in relation to knowledge retention and reusability; achieved efficiency in time and cost reductions. Prior to the Transformation Program (2005), two pilot projects on KPIs had been implemented namely the Malaysia Airlines and Malaysia Airports. From these projects, it was found that while it is common practice to link KPIs with pay and tenure, it proved a challenge to create a new generation of corporate stewards (knowledge workers) with strong focus on high performance and superior value creation (Putrajaya, 2004). In short there needs to be greater alignment in compensation between the GLCs and the market in order to retain the best talent in management.

In this context, KS is required for managing knowledge flow among knowledge workers (Nonaka & Takeuchi, 1995; Davenport & Prusak, 2000; Wigg, 2002). For the purposes of this study, the subject matter experts of the GLCs included both the managerial, administrative and operational front-liners they are people who know something valuable to the organization which others within do not know (EG2KM, 2007). In order to manage knowledge effectively, a new framework is needed to provide multiple channels for them to obtain the required information at the right time, right place and right context (Chidambar, 1999). The process of knowledge

flow among knowledge workers is increasingly recognized as a source of value creation and organizations have come to identify the KM frameworks as strategic facilitators of competitive advantages (Chong & Pandya, 2003). Nonetheless according to Woods (2005), the most common KM approaches in Malaysia are:

- „imported“ KM applications through the Multinational Companies (MNC) (such as HP, Microsoft, etc.) where their existing global KM approaches are adopted by the Malaysian division;
- “adapted” KM applications for local use through multinational corporation –example: Motorola Corporate University as a model being considered by Malaysian institutions, Siemens “Share net” modified for use in an academic environment at Multimedia University and
- “home grown” applications such as the KM blueprints of various government ministries.

These KM awareness and initiatives have indicated that both private and public organizational sectors are actively contributing in developing their KM framework and aware of KM benefits to increase organizational performance and effectiveness. However Chowdhury (2006) lamented that most KM models are formed in the context of a Western framework in which freedom of expression and individualism are both accepted social norms. But this is not necessarily the case in many organizations in Malaysia. In contrast, Asian culture places more emphasis on mutual trust stands in business relationships. As such, people are expected to stay within their own boundaries and avoid challenging the norms of doing business, especially when the relationship involves superiors (Easton & Zhang, 2002). Unfortunately this mind set undermines companies’ level of efficiency in organizational performance as knowledge sharing and collaboration is hindered amongst departments and across

external business entities. Therefore the successful take-up of KS in GLCs of Malaysia would depend on the organizations need to commit to a basic unit of measurement and a common set of characteristics defining knowledge and its management which leverage on local knowledge and encourage collaboration across departments to be competitive. According to Porter (1998), competitive advantage lies increasingly in local things such as knowledge, relationships, and motivation that distant rivals would not be able to replicate. Therein lays the challenge of developing a benchmark for a common unit and benchmark for KS in Malaysia. Despite the reliance of industrial modes of measurement via return of investment (ROI), there is still unclear links between knowledge asset utilization and financial results. As such these competitive pressures compel companies to create customer value and staff and management functions being redirected. Moreover there is rising awareness between the difference of „market value“ and „book value“. For example, Microsoft has an estimated book value of approx. \$13-20 billion, yet it has a market capitalization of \$300-400 billion. This glaring differential represents the earning potential and the value of Microsoft’s use of the knowledge embedded into its processes, technology and people (Skyrme, 1998). Organizations (i.e. the GLCs) need to look for knowledge that adds value and requires closer interaction with stakeholders to find out markets perception of value (Raja Suzanna, 2006).

1.6 Selection of the GLCs

A case study research is not sampling research (Benbasat et al. 1987; Lee, 1989; Yin, 1994) and a single case can be sufficient to disconfirm an existing theory if its predictions do not hold (Markus, 1989). However the selection of cases must be done so as to maximize what can be learned in the period of time available for the study

(Dube & Pare, 2003). However Schell (1992) argued that case studies usually take as their principal subject selected examples of social entity within its normal context. As such in this study, only four GLCs was chosen as the sample population due to fact that these companies were selected on the rationale of their positions as leader of their industry and have implemented KM initiatives at a more proactive level compared to its other counterparts (PCG, 2005). Moreover the feasibility of gathering data from the sources such as interviews would depend upon the respondents' willingness and rate of response to participate in the study.

1.7 Definition of Key Terms

The key words that are extensively used throughout this study are defined to ensure precision of the meanings in the context of the present study as follows:

- Internalization: The process of embodying explicit knowledge into tacit knowledge and closely related to the notion of learning by doing (Nonaka et. al. 1994)
- Knowledge Management: A discipline that provides strategy, process, and technology to share and leverage information and expertise that will increase our level of understanding to more effectively solve problems and make decisions (Satyadas, Harigopal & Cassaigne, 2001)
- Knowledge Strategy: An overall approach that an organization intends to take to align its knowledge resources and capabilities to the intellectual requirements of its strategy, thus reducing the knowledge gap existing between what a company must know to perform its strategy and what it does know (Zack, 1999)

- Government-Linked Companies-link companies: Companies that have a primary objective and in which the Malaysian Government has a direct controlling stake (PCG, 2005)
- Dynamic Capabilities: Attempts to bridge these gaps by adopting a process approach by acting as a buffer between firm resources and the changing business environment, dynamic resources help a firm adjust its resource mix and thereby maintaining the firm's competitive advantage (Wade, 2005)
- Interorganizational Organizational Relations: The degree of commitment that supports an exchange relationship for the transfer of goods, services, or information. (Lazzarini & Zenger, 2002)
- Knowledge Value Added-The KVA analysis produces a return-on-knowledge (ROK) ratio to estimate the value added by given knowledge assets regardless of where they are located (Housel & Bell, 2001)

1.8 Significance of the Study

This study seeks to contribute to further the epistemology of KM from two structures-theoretical and practical significance is as the following:

1.8.1 Theoretical Significance

The study contributed to the theoretical development of KM particularly the knowledge based view (KBV) theory (Alavi & Leidner, 2001) in Malaysia from the perspectives of core competencies and evaluation assessment. In principle, the KBV theory postulates that organizations achieve competitive advantage and innovation from the combination of heterogonous resources and collaborative work (Alavi & Leidner, 2001). Organizations create ties with organizations that have resources and

capabilities that can help them cope with uncertain environments and satisfy their resource needs (Baum & Ingram, 2002). The findings of this study would provide better proliferation of the concept of dynamic capabilities in the context of alignment between the utilization of resources and knowledge strategies (KS) more specifically with the introduction of the knowledge value added (KVA) methodology. The concept of dynamic capabilities arose from a key shortcoming of the resource-based view (RBV) of the firm. Dynamic capabilities (DC) are attempts to bridge these gaps by adopting a process approach: by acting as a buffer between firm resources and the changing business environment, dynamic resources help a firm adjust its resource mix and thereby maintaining the firm's competitive advantage (Wade, 2005). As such in this study, DC was illustrated by the GLC's by taking proactive steps to internalize the VCP into and implement KS initiatives since 2005. For the purposes of this study, interorganizational relations would be analyzed in the recognition of tacit knowledge rather than explicit values such as investment and costs. In order to delve into the proposition, the study would need to include discussions on the GLCs' capability and capacities in developing a "KM system" (KMS) with regards to sharing intangible assets, collaborative working and recombination of assets. The notion of a KMS is meant to capture the perceived attractiveness of an actor as an exchange partner due to its own resources and its unique set of connected relations with other actors, links to their activities and ties with their resources (Olkkonen, 2001). Subsequently upon the completion of the study, a report on the performance and knowledge strategy typology of the GLCs shall be submitted to the Putrajaya High Commission on GLC performance as a further indicator of KM achievements of the companies.